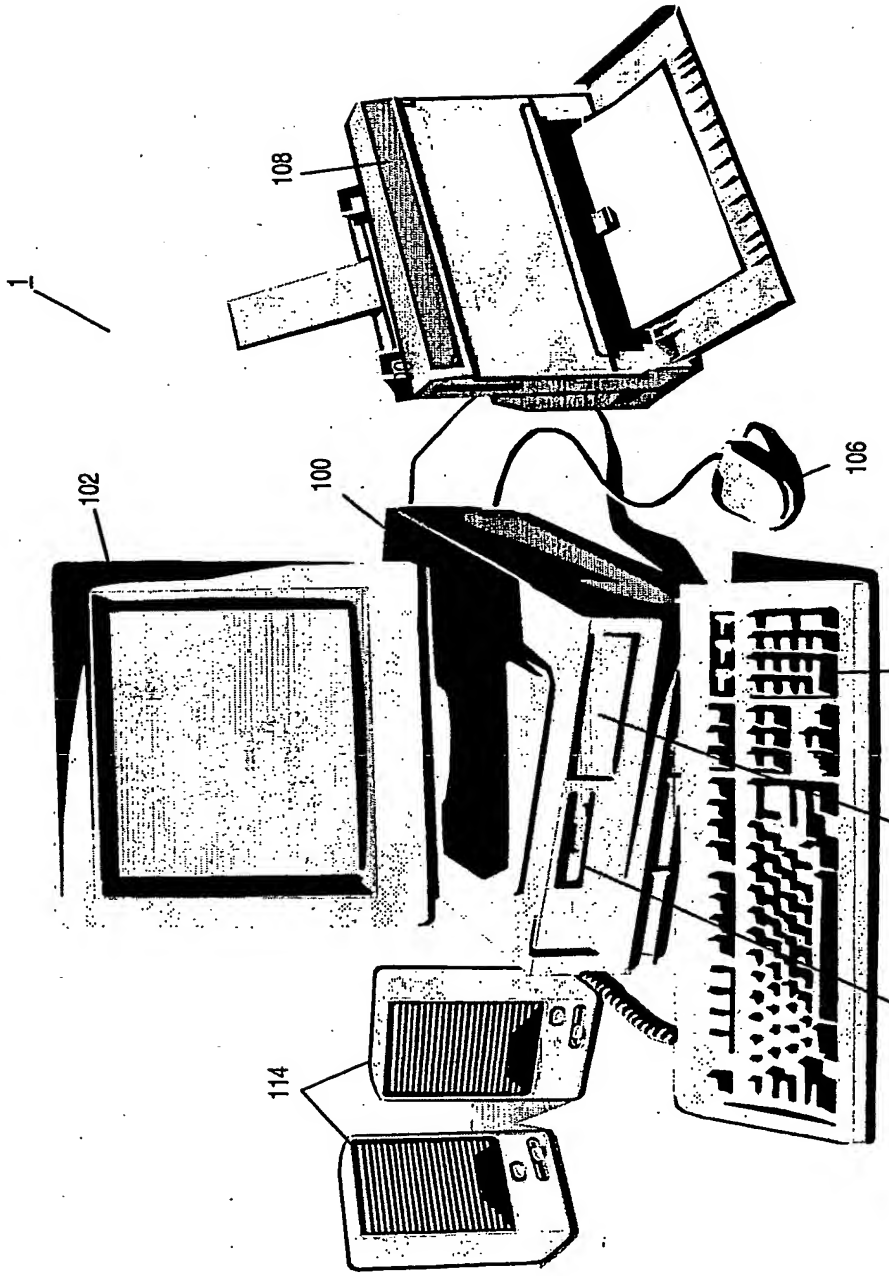

Figure 1

BEST AVAILABLE COPY

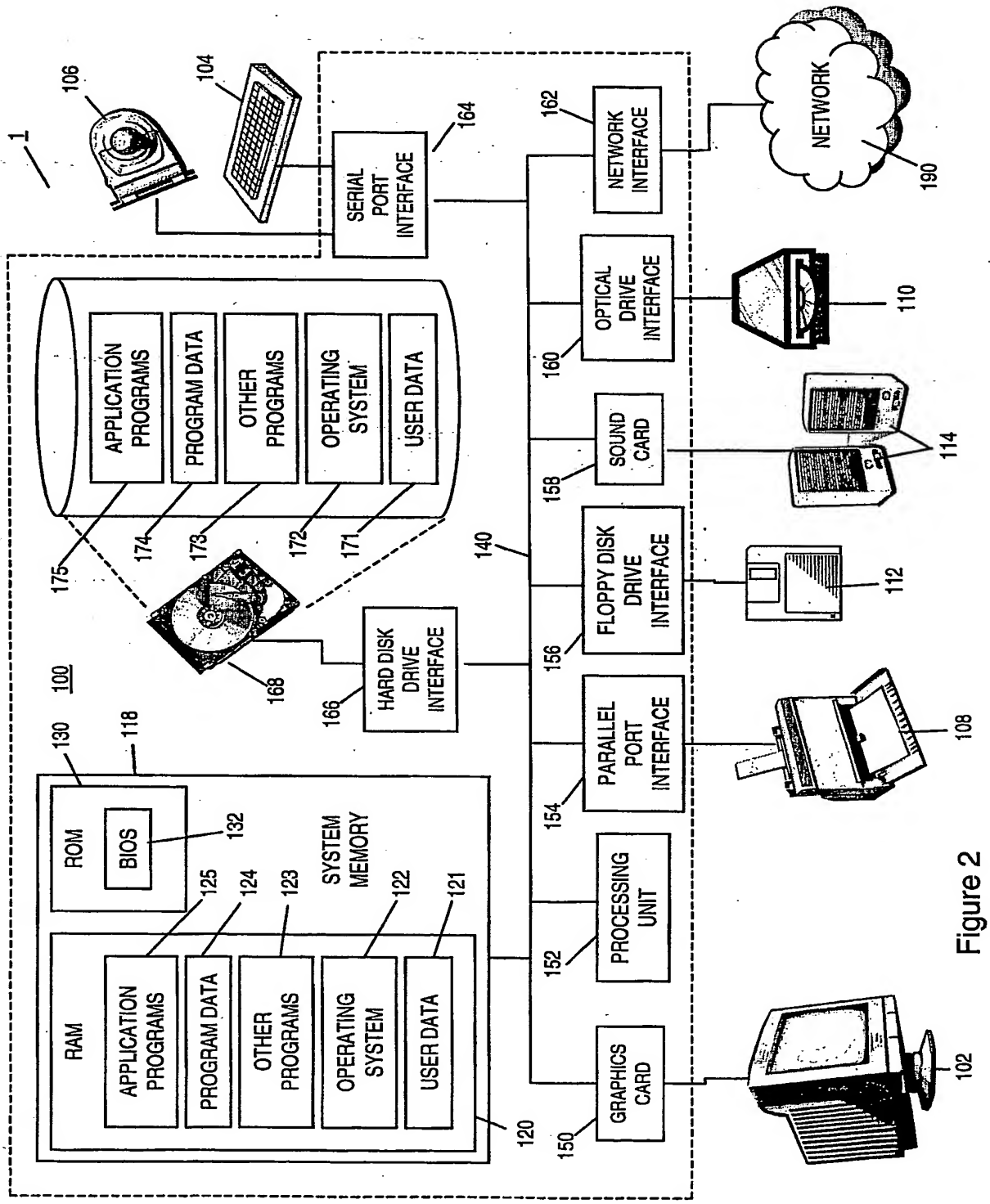

Figure 2

BEST AVAILABLE COPY

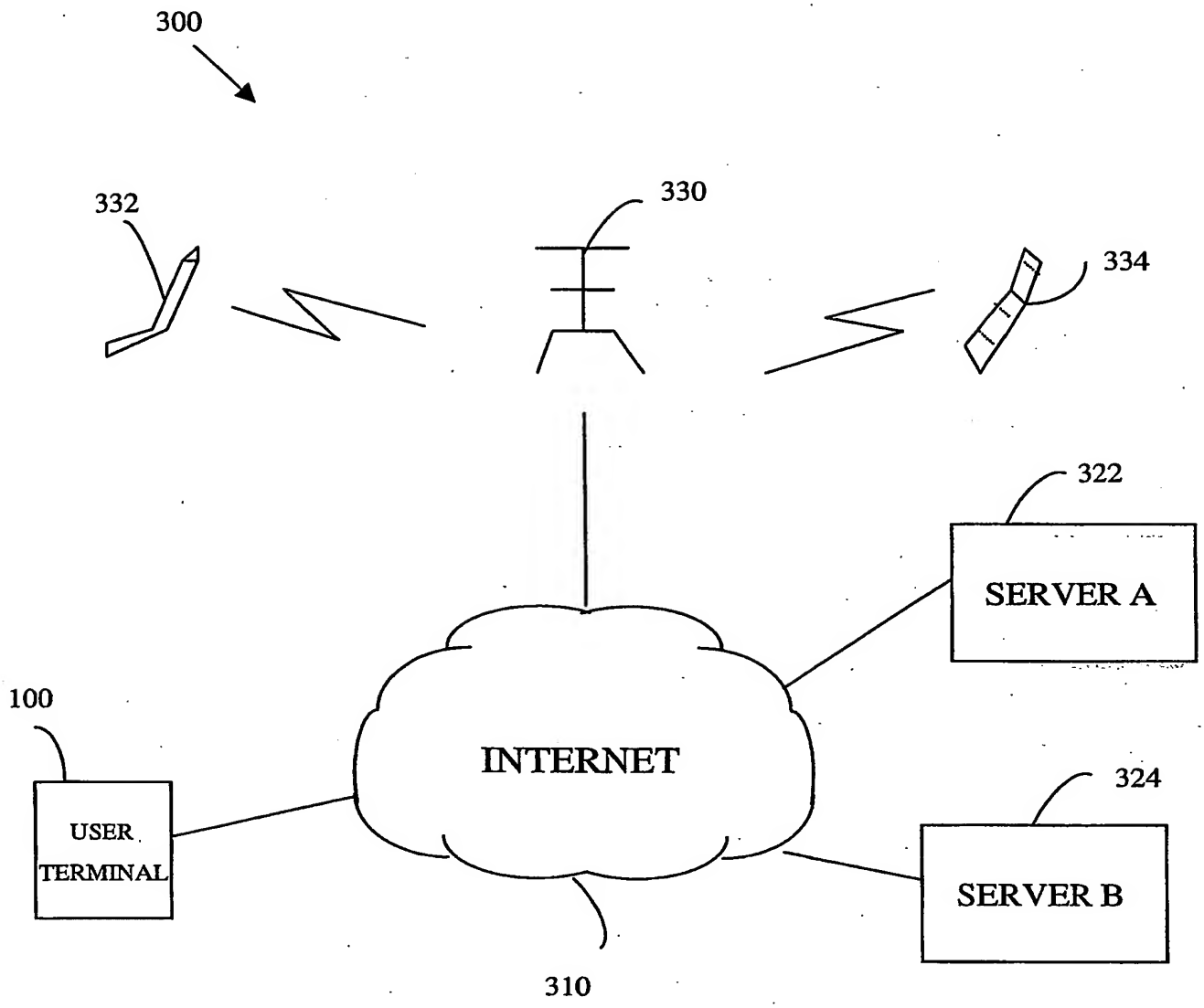
300
332
330
334
322
SERVER A
100
INTERNET
USER TERMINAL
324
SERVER B
310

Figure 3

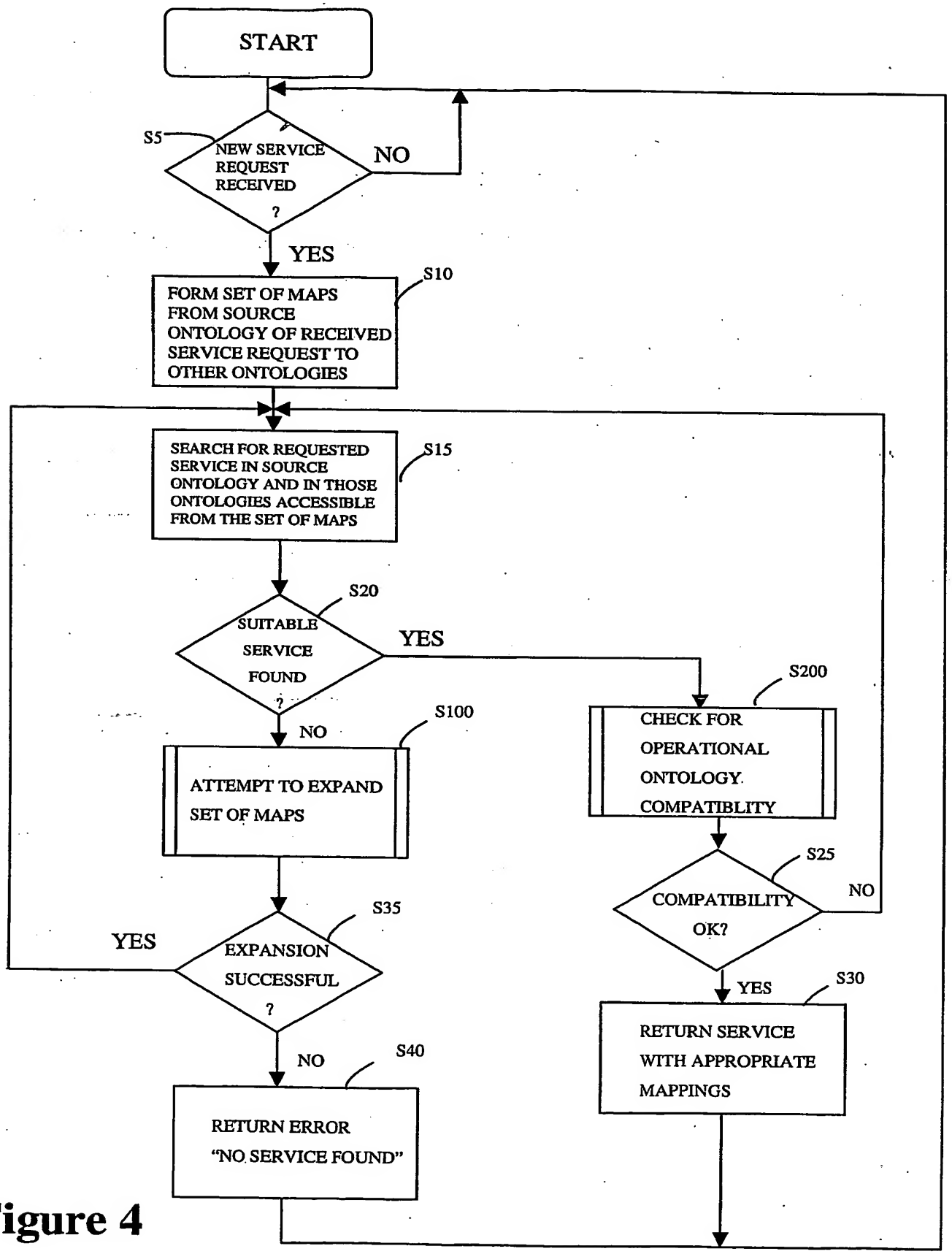
START
S5
NEW SERVICE REQUEST RECEIVED ?
NO
YES
S10
FORM SET OF MAPS FROM SOURCE ONTOLOGY OF RECEIVED SERVICE REQUEST TO OTHER ONTOLOGIES
S15
SEARCH FOR REQUESTED SERVICE IN SOURCE ONTOLOGY AND IN THOSE ONTOLOGIES ACCESSIBLE FROM THE SET OF MAPS
S20
SUITABLE SERVICE FOUND ?
YES
NO
S100
ATTEMPT TO EXPAND SET OF MAPS
S35
EXPANSION SUCCESSFUL ?
YES
NO
S40
RETURN ERROR "NO SERVICE FOUND"
S200
CHECK FOR OPERATIONAL ONTOLOGY COMPATIBLITY
S25
COMPATIBILITY OK?
NO
YES
S30
RETURN SERVICE WITH APPROPRIATE MAPPINGS

Figure 4

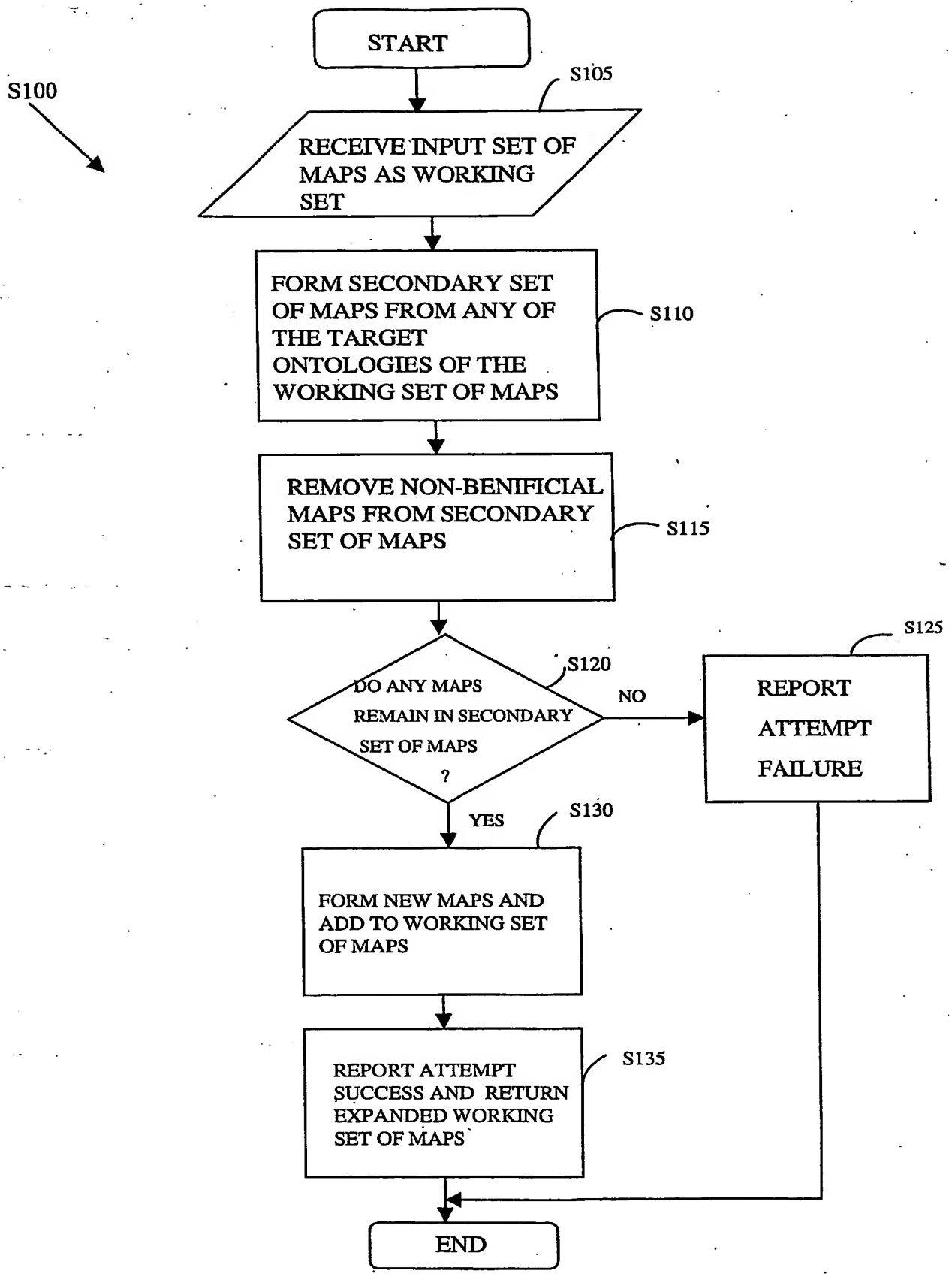
START
S100
S105
RECEIVE INPUT SET OF MAPS AS WORKING SET
FORM SECONDARY SET OF MAPS FROM ANY OF THE TARGET ONTOLOGIES OF THE WORKING SET OF MAPS
S110
REMOVE NON-BENIFICIAL MAPS FROM SECONDARY SET OF MAPS
S115
DO ANY MAPS REMAIN IN SECONDARY SET OF MAPS ?
S120
NO
REPORT ATTEMPT FAILURE
S125
YES
S130
FORM NEW MAPS AND ADD TO WORKING SET OF MAPS
REPORT ATTEMPT SUCCESS AND RETURN EXPANDED WORKING SET OF MAPS
S135
END

Figure 5

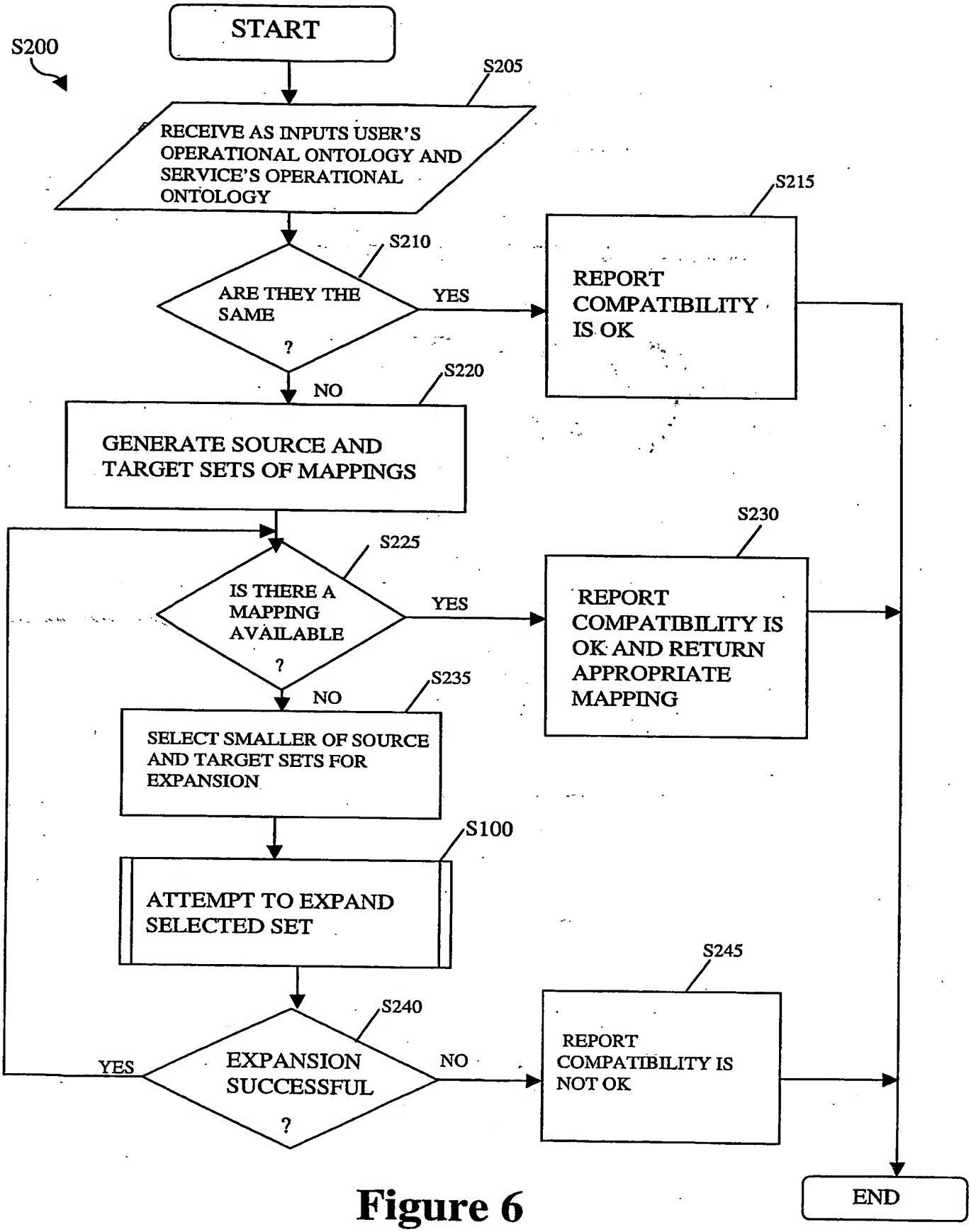
START
S200
S205
RECEIVE AS INPUTS USER'S OPERATIONAL ONTOLOGY AND SERVICE'S OPERATIONAL ONTOLOGY
S210
ARE THEY THE SAME ?
YES
S215
REPORT COMPATIBILITY IS OK
NO
S220
GENERATE SOURCE AND TARGET SETS OF MAPPINGS
S225
IS THERE A MAPPING AVAILABLE ?
YES
S230
REPORT COMPATIBILITY IS OK AND RETURN APPROPRIATE MAPPING
NO
S235
SELECT SMALLER OF SOURCE AND TARGET SETS FOR EXPANSION
S100
ATTEMPT TO EXPAND SELECTED SET
S240
EXPANSION SUCCESSFUL ?
YES
NO
S245
REPORT COMPATIBILITY IS NOT OK
END

Figure 6